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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/601,365

11/03/2000

Bernd Mahr

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03/09/2004

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EXAMINER

TRAN, HIEN THI

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,365

Applicant(s)

MAHR, BERND

Examiner

Hien Tran

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: attached translation of JP 05-115749

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "1" (Figs. 1-2). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Specification

3. The disclosure is objected to because of the following informalities:

On page 3, lines 15-16 reference to the claim is improper and should be deleted.

On page 7, between lines 10-11 --BRIEF DESCRIPTION OF THE DRAWINGS-- should be inserted.

On page 8, line 8 "18" should be changed to --16-- (note page 10, lines 1-2).

Appropriate correction is required.
4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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Claim Objections

5. Claims 17-24 are objected to because of the following informalities:

In claim 17, line 1 apparently "in which the bypass line (12) has" should be changed to -- wherein the reducing agent supply device comprises-- for clarity. See claims 18-24 likewise.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 29, the language of the claim is directed to method limitation which renders the claim vague and indefinite as it is unclear as to what structural limitation applicant is attempting to recite. See claim 30 likewise.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 11-12, 15-18, 20, 29, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236.

With respect to claim 11, JP 05-115749 discloses an apparatus for post-treating exhaust gases of an internal combustion engine comprising: a reduction catalytic converter 3 which serves to reduce NOx ingredients of the exhaust gases and to which an exhaust pipe 1 leads, provided with a reducing agent supply device 4 for supplying reducing agent to a bypass line 2.

The apparatus of JP 05-115749 is substantially the same as that of the instant claims, but fails to disclose a means to generate a pressure difference in the exhaust gas.

However, EP 381,236 discloses the conventionality of providing an apparatus comprising a reduction catalytic converter 21, a reducing agent supply device 13 and a supercharge 9, 38, 64, etc. to generate a pressure difference in the exhaust gas.

It would have been obvious to one having ordinary skill in the art to providing a supercharge as taught by EP 381,236 in the apparatus of JP 05-115749 for pressure regulating as use of such is conventional in the art and no cause for patentability here.

With respect to claims 12, 17, 18, 20, JP '749 discloses that the bypass line has a control valve 9.

With respect to claims 15-16, EP '236 discloses provision of spray tube 12, 13 for discharging into the exhaust line. It would have been obvious to one having ordinary skill in the art to alternatively select an appropriate shape for the discharge device, such as the spray tube, as

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taught by EP '236 in the modified apparatus of JP '749, if not inherent therein, as such is conventional in the art and no cause for patentability here. Furthermore, the shape of the discharge device is not considered to confer patentability to the claim. It would have been an obvious matter of design choice to select an appropriate shape for the discharge device, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With respect to claim 29, note that the reducing agent is not a part of the apparatus and therefore is of no patentable moment in apparatus claim.

In any event, JP '749 discloses that the reducing agent may be urea (translation page 13).

With respect to claim 31, EP '236 discloses that the supercharger is a turbine (col. 12, line 55-col. 13, line 8, etc.).

11. Claims 13-14, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236 as applied to claims 11-12 above and further in view of Vollenweider (5,209,062).

The apparatus of JP '749 as modified by EP '236 is substantially the same as that of the instant claims, but fails to the specific shape of the bypass line discharge, e.g. ring conduit.

However, the shape of the discharge device is not considered to confer patentability to the claim. It would have been an obvious matter of design choice to select an appropriate shape for the discharge device, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of

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ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In any event, Vollenweider discloses the conventionality of providing a ring conduit with bores. It would have been obvious to one having ordinary skill in the art to alternatively select an appropriate shape for the discharge device, such as the ring conduit, as taught by Vollenweider in the modified apparatus of JP '749, as such is conventional in the art and no cause for patentability here.

With respect to claim 19, JP '749 discloses that the bypass line has a control valve 9.

12. Claims 21-22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236 as applied to claims 11-12, 15 above, and further in view of Hofmann et al (5,943,858).

The apparatus of JP '749 as modified by EP '236 is substantially the same as that of the instant claims, but fails to the specific supply line, e.g. carburetor.

However, the shape of the supply line is not considered to confer patentability to the claim. It would have been an obvious matter of design choice to select an appropriate shape for the supply line, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In any event, Hofmann et al discloses provision of an injection device in form of carburetor for injecting the reducing agent thereof. It would have been obvious to one having ordinary skill in the art to alternatively select an appropriate shape for the discharge device, such

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as the carburetor, as taught by Hofmann et al in the modified apparatus of JP '749, as such is conventional in the art and no cause for patentability here.

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236 and Vollenweider (5,209,062) as applied to claims 11-14 above and further in view of Hofmann et al (5,943,858).

The same comments with respect to Hofmann et al apply.

14. Claims 25-26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236 as applied to claims 11-12, 15 above, and further in view of Murphy et al (6,122,909).

Murphy et al discloses the conventionality of providing an oxidation catalytic converter/cracking catalytic converter upstream of the reducing catalytic converter and downstream of the reducing agent injection location.

It would have been obvious to one having ordinary skill in the art to provide an oxidation catalytic converter as taught by Murphy et al in the modified apparatus of JP '749 for facilitating the purification of the exhaust gas thereof, since such is conventional in the art and no cause for patentability here.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable JP 05-115749 in view of EP 381,236 and Vollenweider (5,209,062) as applied to claims 11-14 above, and further in view of Murphy et al (6,122,909).

The same comments with respect to Murphy et al apply.

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16. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-115749 in view of EP 381,236 as applied to claims 11-12 above, and further in view of Linder et al (5,606,856).

Note that the reducing agent is not a part of the apparatus and therefore is of no patentable moment in apparatus claim.

In any event, Linder et al discloses the conventionality of using diesel fuel as a reducing agent.

It would have been obvious to one having ordinary skill in the art to alternatively select an appropriate reducing agent, such as diesel fuel as taught by Linder et al in the modified apparatus of JP '749 for the known and expected results of obtaining the same results in the absence of unexpected results.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

HT
February 27, 2004

Hien Tran
Primary Examiner
Art Unit 1764